

Media:

NPDES \_\_\_\_\_  
TSCA \_\_\_\_\_  
RCRA XXXXXX  
AIR \_\_\_\_\_  
OTHER \_\_\_\_\_

FY 89 REGION III ESD  
INSPECTION TRACKING SYSTEM

Facility Name: OXY-CHEM

Address: RIVER ROAD  
DELAWARE CITY  
DELAWARE 19706

Type of Inspection: RCRA-CEI

Date of inspection: 3/28/89

Date of Report:

Permit/ID Number: DED003913266

Inspector and Office: HOUGHTON  
CRL

CHECK APPLICABLE

\_\_\_\_\_ Major  
\_\_\_\_\_ Municipal  
\_\_\_\_\_ Federal  
\_\_\_\_\_ Joint  
\_\_\_\_\_ Oversight

\_\_\_\_\_ Minor  
\_\_\_\_\_ Industrial  
\_\_\_\_\_ Violations (Describe)

\_\_\_\_\_ Other

Signature: [Signature]

Date: 5-15-89

Comments: No apparent violations of the RCRA regulations  
were found during this inspection.

RCRA Compliance Evaluation Inspection

OXY-CHEM  
Occidental Chemical Corporation  
Electrochemical, Detergent & Specialty Products  
River Road  
Delaware City, Delaware 19706

Telephone Number: B02-834-3947

Date of Inspection: March 28, 1989

EPA Representative:

George H. Houghton  
Environmental Protection  
Specialist

Charleen Harrison  
Hazardous Waste Enforcement  
Branch

Ruth Rzepski  
Hazardous Waste Enforcement  
Branch

State Representative:

Jay Brahmhatt  
Environmental Engineer

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Facility Representative:

Robert Moore (not present)  
Plant Manager

Richard L. Timmons  
Technical Manager

Jess A. Vargo, Jr.  
Principal Engineer

## BACKGROUND

Oxy-Chem, located in Delaware City, Delaware was chosen for a RCRA-Compliance Evaluation Inspection to determine compliance with the hazardous waste regulations and determine the status of the hazardous waste surface impoundment. This facility was formerly owned and operated by Diamond Shamrock.

## PERMIT STATUS

Oxy-Chem has submitted closure plans for all hazardous waste management areas including the surface impoundment. After the approval of the closure plans the facility will be a generator of hazardous waste storing for less than 90 days. Currently, the facility is a generator and storer of hazardous waste for greater than 90 days.

At the time of this inspection the facility is awaiting action from the regulatory agencies for the closure plans.

## FACILITY DESCRIPTION

Oxy-Chem uses a mixture of solar salt and water (brine) to produce chlorine, hydrogen gas, potassium hydroxide and sodium hydroxide. The driving force behind this reaction is electricity. Mercury is used for the cathode. The facility has 88 cells to produce these products. The hazardous waste generated by this process is K106, K071 and D009.

## INSPECTION OBSERVATIONS

Delisting Petition

The delisting petition submitted in 1987 by Oxy-Chem for the K071 waste has not been approved or rejected as of this inspection.

Surface impoundment

Oxy-Chem stopped using their surface impoundment on November 8, 1988. A memo directed to facility personnel states the same policy. A copy of this memo is attached for your information. This inspector observed the impoundment and noted the lack of recent activity at the site. An amount of water was observed at one end of the impoundment. According to the facility representative, the water resulted from recent rain and not the result of any process. There is an under drain system which collects impounded water and conveys it to a sump where it is pumped to the facility's WWTP. The water is then treated and discharged. The facility has inspected the impoundment almost daily since November as a part of a general facility inspection. A closure plan has been submitted to the regulatory agencies for this unit.

K071 (Brine Sludge)

The Brine Sludge was disposed in the surface impoundment until November of last year. It has been the facility's policy to eliminate waste from the process about every six months. Since this waste can no longer be disposed in the surface impoundment the facility is constructing a dewatering system. This system will be ready in June of this year and the resultant sludge cake will be disposed off site. In addition to the dewatering, a second treatment process is being constructed to meet the criteria in the K071 delisting petition. According to the facility this

equipment will also meet the BDAT standards for the K071 waste in case the delisting petition is not granted and the waste must be disposed in accordance with the land disposal restrictions.

K106 (WWTP sludge from the production of chlorine using a mercury cell)

This soft hammer waste is currently disposed off site since the closing of the facility surface impoundment. It is Oxy-Chem's intention to submit a delisting petition for this waste in June of 1989. Another Oxy-Chem facility has submitted a petition to EPA for this same waste.

less than 90 day storage

Cell room

During the last EPA inspection this area was reported to be a satellite accumulation area. Oxy-Chem has changed its procedures and now considers this area to be less than 90 day storage. This inspector observed the cell area and found all containers to be covered and in good condition, not showing any signs of leaks or corrosion. Each container was marked with the words "hazardous waste", the container contents and the initial accumulation date.

Near the cell room was a 30 yard rolloff that contained D009 waste from facility maintenance. This dumpster was also marked with the words "hazardous waste", labeled D009 and dated "1-26-89". No leaks were noted. A tarp covered the rolloff except for one corner. It appeared the wind blew the tarp off this one small area.

20 yard and 30 yard dumpsters

These two dumpsters are used to accumulate K106 and D009 waste. Both of these dumpsters were covered, marked for contents, dated and showed no signs of deterioration. Inspections for this area are on record.

Greater Than 90 Day StorageDrum Storage Pad

The drum storage pad appeared to be the same as in the last EPA inspection. All the drums were closed, dated, labeled and not showing any signs of leaks or deterioration. Aisle space was adequate. The pad itself was fenced and the surface of the pad did not show any cracks or similar problems. Capacity of the pad is 509 containers but less than 100 were stored there during this inspection. Documented inspections are maintained for this area.

Carbontetrachloride Tank

This covered, above ground tank appeared to be empty at the time of this inspection. The tank was labeled U211 and the words "hazardous waste" appeared on the outside of the tanks. This tank has secondary containment. Documented inspections are conducted for this tank.

Land Ban

Oxy-Chem submitted to the Regional Administrator a demonstration for U211 and K106 waste (attached). According to the facility, this demonstration accompanied the waste manifest for the first shipment (manifest number 401679 11-10-88). Copies of the outgoing waste manifest with the land ban information is attached for your information. The information attached to the manifests appear to be appropriate for the waste being shipped.

There have been no offsite shipments of the K071 waste since the land ban regulations became effective. It appears the restricted waste stored on site is to facilitate the transportation and not circumvent the regulations.

## SUMMARY OF FINDINGS

A RCRA Compliance Evaluation Inspection was conducted at Oxy-Chem on March 23, 1989 to determine compliance with the hazardous waste regulations. The facility appeared to be in compliance with the RCRA regulations at the time of this inspection.

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## LIST OF ATTACHMENTS

1. Generator Checklist
  2. TSD Checklist
  3. Generator Checklist-Land Ban
  4. RCRA Checklist for Tanks
  5. RCRA Checklist for Surface Impoundments
  6. Individual Documents
    - a. Cell Room checklist
    - b. Oxy-Chem Memo to stop using impoundment
    - c. Contract for disposal of hazardous waste
    - d. Manifest 401660
    - e. Manifest 401662
    - f. Manifest 401663
    - g. Manifest 401664
    - h. Manifest 401673
    - i. Manifest 401669
    - j. Manifest 401670
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1-11-89

Generator Checklist  
EPA Region III

3-28-89

Houghton

Name of Facility: Oxy Chem

Address of Facility: River Road

Delaware City, Del 19706

EPA I.D. Number: DED 003913266

Name/Title-Facility Representative: Richard Timmons

I. General

1. Provide a brief description of the type of work activity that produces hazardous waste at this generator:

chlorine production through the  
mercury cell process -  
NaOH produced as a byproduct.

2. Does the generator perform the following on-site:

- |  |                                      |                                     |
|--|--------------------------------------|-------------------------------------|
| a. storage (>90 day) of hazardous waste? | <input checked="" type="radio"/> Yes | <input type="radio"/> No            |
| b. treatment of hazardous waste?         | Yes                                  | <input checked="" type="radio"/> No |
| c. disposal of hazardous waste?          | Yes                                  | <input checked="" type="radio"/> No |

261.4 3. Is the facility subject to any exclusions for its hazardous waste?

Yes

☒ No

If yes, list the waste and the basis for exclusion:

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262.11(c) 4. Does the facility generate any characteristic hazardous waste?

☒ Yes

No

If yes, describe how these characteristics were determined (testing, knowledge of process/materials used).

D002

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D009

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5. Does the facility contemplate any changes in its operation from a hazardous waste generation or management perspective?

☒ Yes

No

If yes, describe: Applied for exclusion delisting  
For K071 + K106 - close surface  
Impound<sup>ments</sup> continue to use drum storage  
+ tank for < 90 day storage. -

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## II. Manifest System

Complete this section only if facility ships hazardous waste off-site. *1988 ANNUAL Report Attached*

1. Identify the name and address of off-site facilities which have received waste from this generator.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

I.D. No. \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

I.D. No. \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

I.D. No. \_\_\_\_\_

- 202.20(a) 2. Is the waste shipped off-site manifested on the Uniform Hazardous Waste Manifest (§262, Appendix)?

Yes

No

If no, explain manifest system used: \_\_\_\_\_

If yes, inspect recent manifests and indicate whether they contain:

a. Name, Mailing address and EPA ID No. of generator? Yes No

b. The name and EPA ID No. of each transporter? Yes No

- c. DOT waste description, including proper shipping name, hazardous class and DOT identification number? ☒ Yes ☐ No
- d. Number and type of containers (if applicable)? ☒ Yes ☐ No
- e. Quantity of each waste transported? ☒ Yes ☐ No
- f. Name, EPA ID number and site address of facility designated to receive the waste? ☒ Yes ☐ No
- g. The following certification (effective Sept. 1, 1985) ☒ Yes ☐ No

"I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and environment."

262.23(a) 3. Did the generator:

- a. Sign and date the manifest? ☒ Yes ☐ No
- b. Obtain the handwritten signature and date of acceptance from the initial transporter? ☒ Yes ☐ No
- c. Ensure that return copies of the manifest from the designated TSD facility were properly signed and dated? ☒ Yes ☐ No
- d. Retain a copy of the signed manifest? ☒ Yes ☐ No

# Waste Accumulation

1. Does the generator utilize the following types of waste accumulation:

a. Satellite Accumulation?

Yes ☒ No

b. Less than 90 day storage?

☒ Yes No

Answer the following questions if the generator has satellite accumulation area(s).

262.234(c)(1) 2. Is satellite accumulation area(s) near the point of waste generation?

Yes ☒ No

If no, describe: \_\_\_\_\_

3. Are there multiple satellite accumulation areas for any one process that generates hazardous waste?

Yes No

If yes, describe: \_\_\_\_\_

262.34(c)(1) 4. Is the waste stored in containers?

Yes No

265.171 5. Are containers in good condition?

Yes No

If no, explain: \_\_\_\_\_

262.34(c)(1) 6. Are container(s) marked with the words hazardous waste or the actual contents of the container(s)?

Yes No

265.173(a) 7. Are container(s) kept closed?

Yes No

265.171 8. Are any container(s) leaking?

Yes No

If yes, describe: \_\_\_\_\_

262.34(c)(1) 9. Has generator accumulated more than 55 gallons of hazardous waste(s) or more than 1 quart of acutely hazardous waste(s) in a satellite accumulation area?

Yes No

If yes:

262.34(c)(2) a. Are the container(s) holding excess waste dated as to when accumulation began? Yes No

b. Does the excess waste comply with the less than 90 day storage requirements (40 C.F.R. 262.34(a) within 3 days of the time when accumulation began? Yes No

N O T E: Pennsylvania regulations do not contain an explicit provision for satellite accumulation areas. Generator facilities in Pennsylvania that employ satellite accumulation must not store for more than 90 days, otherwise they are a TSD facility.

Answer the following questions if the generator has less than 90 day storage.

262 (a)(1) 10. What is the method of waste storage:

Containers?

Yes No

Tanks?

Yes No

Other?

Yes No

If other, describe: \_\_\_\_\_

262.34(a)(4) 11. Does the facility maintain personnel training and other records required in 40 C.F.R. §265.16?

Yes No

If no, explain: Mandatory - yearly updates & Records indicated

type of training - name - job title - date of  
training + signature

262.34(a)(4) 12. Does the facility maintain an adequate preparedness and prevention program as required in 40 C.F.R. 265 Subpart C?

Yes No

If no, explain: Revised every 3 yrs

- 262.34(a)(4) 13. Has the facility prepared a Contingency Plan that satisfies the requirements of 40 C.F.R. 265 Subpart D?

☒ Yes ☐ No

If no, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Answer the following questions if the generator uses container storage:

- 262.34(a)(2) 14. Are all container(s) marked with the words "Hazardous Waste" and  
(3) the date that waste accumulation in that container begins?

☒ Yes ☐ No

- 262.34(a) 15. Based upon accumulation dates, have any container(s) been in storage for more than 90 days?

☒ Yes ☐ No

- 265.173(a) 16. Are container(s) kept closed?

☒ Yes ☐ No

- 265.171 17. Are container(s) in good condition:

☒ Yes ☐ No

If no, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 262.171 18. Are any container(s) leaking?

☒ Yes ☐ No

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 265.174 19. Is the storage area(s) inspected at least weekly and is an adequate inspection record/log maintained?

☒ Yes ☐ No

If no, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

265.177(c) 20. Are incompatible wastes properly separated or protected from one another while in storage?

Yes

No

N/A

If no, explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

265.176

21. Are containers holding ignitable or reactive waste located at least 15 meters (50 feet) from the facility's property line?

Yes

No

N/A

Answer the following questions if the facility is located in Pennsylvania or Maryland

Pa-75.265(q) 22. Does the container storage and receiving area have a sufficiently large\* containment system capable of collecting and holding spills, leaks and precipitation?

(10)

Yes

No

Md-1 1.05.09

(H)(1)

If no, explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Pa-75.265(q) 23. Is there any escape or overflow of spilled or leaked waste or accumulated precipitation from the sump or collection system?

(12)

Md-10.51.05.09

(H)(3)

Yes

No

N/A

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Pa-75.265(q) 24. Is there a means to prevent run-on from entering the containment system?

(11)

Yes

No

Md-10.51.05.09

(H)(2)

\* At least 10% of the volume of all containers or the volume of the largest container, whichever is greater.



Answer the following questions if the facility is located in Pennsylvania

75.265(q)(14) 25. Do storage containers exceed any of the following heights?

a. Six feet for indoor storage of reactive or ignitable wastes?

Yes No N/A

b. Nine feet for outdoor storage of reactive or ignitable wastes?

Yes No N/A

c. Nine feet for indoor or outdoor storage of non-reactive or nonignitable wastes?

Yes No N/A

75.265(q)(14) 26. Is there a minimum 40 foot setback from a building for all outdoor container storage of reactive or ignitable wastes?

Yes No N/A

75.265(q)(14) 27. Is there at least a five foot wide aisle around each group of containers in either indoor or outdoor storage?

Yes No

75.265(q)(14) 28. Is there a main aisle or accessway at least 12 feet wide maintained through a container storage area?

Yes No

Answer the following question if the generator uses tank storage and complete the checklist for tanks.

262. (a)(3) 29. Is the tank(s) labeled or clearly marked with the words "Hazardous Waste"?

Yes No

## IV. Recordkeeping and Reporting

- 62.42(b) 1. Does the generator prepare an Exception Report and submit it to the appropriate agency if a signed copy of the manifest is not received within 45 days of the date the waste was accepted by the initial transporter? (30 days for Maryland facilities) N/P  
Yes No
- 62.42(b) 2. Does the Exception Report include:  
a. Legible copy of the manifest Yes No  
b. Cover letter explaining generator's efforts to locate waste and the results of those efforts? Yes No
- 62.41(a) 3. If the generator ships any hazardous waste off site, does it prepare an Annual Report and submit it to the appropriate State agency? (quarterly reports for Pennsylvania facilities) N/A  
☒ Yes No
- 62.41(a) 4. Does the Annual Report include: ~  
a. Description and quantity of hazardous waste shipped off-site? ☒ Yes No  
b. Name(s) of TSD facilities receiving waste(s)? ☒ Yes No  
62.41(a)(6) c. Efforts undertaken during the year to reduce the volume and toxicity of the hazardous waste? ☒ Yes No  
62.41(a)(7) d. Description of the change in volume and toxicity of the waste actually achieved? ☒ Yes No  
262.40(a)(b)(c) 5. Does the generator retain copies of signed manifests from designated TSD facilities Annual Reports, Exception Reports and test results for a minimum of 3 years? (does not pertain to Pennsylvania facilities) N/A  
☒ Yes No
-

Answer the following questions if the generator is located in Pennsylvania

N/A

- |             |   |            |          |     |
|-------------|---|------------|----------|-----|
| 5.262(h)(1) | 6. Does the generator retain a copy of each manifest that has been properly signed for a period of at least 20 years  | Yes<br>Yes | No<br>No |     |
| 5.262(h)(2) | 7. Does the generator retain a copy of each quarterly report and Exception Report for a period of at least 20 years?  | Yes        | No       |     |
| 5.262(h)(3) | 8. Does the generator retain records of any test results, waste analysis, etc. for a period of at least 20 years?   | Yes        | No       |     |
| 5.262(m)(1) | 9. Does the generator notify PA DER of a discharge or spill of hazardous waste which are in amounts greater than the appropriate reportable quantities or any quantities which enter surface or ground water? | Yes        | No       | N/A |
| 5.262(m)(4) | 10. Does the generator file a written report on any reportable hazardous waste discharge or spill with PA DER within 15 days after the incident?  | Yes        | No       | N/A |
| 5.262(m)(5) | 11. Has the generator developed and implemented a contingency plan approved by PA DER?  | Yes        | No       |     |

# V. Small Quantity Generators

N/A

Answer the following questions if the generator generates a total quantity of hazardous waste between 100 kg and 1000 kg per month.

262.34(d)(1)	1. Does the quantity of waste accumulated on-site exceed 6000 kg	Yes	No	
262.34(d)(e)	2. Is the waste accumulated on-site for greater than 80 days (or for more than 270 days if waste must be transported over 200 miles)?	Yes	No	
	3. If waste is accumulated on site			
262.34(d)(2)(3)	a. Does the generator comply with either the container regulations found in 40 C.F.R. 265 Subpart I (except §265.176) or the tank regulations contained in 265.201 (40 C.F.R. 265 Subpart J), whichever is appropriate?	Yes	No	
262.34(d)(4)	b. Does the generator mark all containers with the date that waste accumulation begins?	Yes	No	N/A
265.34(d)(4)	c. Does the generator mark each container or tank with the words "Hazardous Waste"?	Yes	No	
265.34(d)(4)	d. Does the generator comply with the "Preparedness and Prevention" requirements contained in 40 C.F.R. 265 Subpart C?	Yes	No	
262.34(d)(5)(i)	e. Is there an emergency coordinator either on the premises or on call at all times?	Yes	No	

62.34(d)  
(5)(ii)

f. Has the generator posted the following information next to a telephone

NA

name and telephone number of emergency coordinator?

Yes No

location of fire extinguishers, spill control material, fire alarms, etc?

Yes No

telephone number of fire department unless direct alarm available?

Yes No

262.34(d)(5)  
(iii)

g. Has the generator ensured that all appropriate employees are thoroughly familiar with proper waste handling and emergency procedures?

Yes No

262.20(e)

Does the generator use an acceptable manifest system when shipping hazardous waste off-site unless the waste is reclaimed under a proper contractual agreement?

Yes No

If no, explain

262.44

5. Does the generator retain copies of manifests and records of test results or waste analyses for at least three years?

Yes No

Comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## RCRA CHECKLIST FOR INSPECTION OF TSD FACILITIES

RO USE

Name of Facility: OXY-chem (3-28-89)  
 Address: River Road  
Delaware City, Del 19706  
 EPA TSD ID Number: DEDO03913266  
 Facility Inspection Representative: Richard Timmons  
 Title: Technical Manager  
 Telephone: 302-834-3831

Inspection File

No. \_\_\_\_\_

Reviewer \_\_\_\_\_

Date reviewed \_\_\_\_\_

Form "B"

## SITE CHARACTERIZATION

(Please denote if the facility presently treats, stores, or disposes of hazardous waste. Also, mark the appropriate sub-category that occurs at the particular facility.)

## TREATER

☐ Filtration  
☐ Incineration  
☐ Thermal Reduction  
☐ Recycling/Recovery  
☐ Chem/Phys/Bio Treatments  
☐ Waste Oil  
☐ Reprocessing  
☐ Solvent Recovery  
☐ Other \_\_\_\_\_

## STORER

☐ Open Pile  
☐ Surface Impoundment  
☒ Drum  
☒ Above ground tank(s)  
☐ Below ground tank(s)  
☐ Other \_\_\_\_\_

## DISPOSER

☐ Landfill operation  
☐ Land treatment  
☒ Surface Impoundment  
☐ Other \_\_\_\_\_

## INSPECTION PROCEDURE

1. Does the facility generate hazardous waste? (Yes) N

Note: Please complete the generators checklist, Numbers 1 thru 8, if the TSD facility generates hazardous wastes which are disposed off-site.

- 65.13 2. Does the on-site or off-site facility have a written waste analysis plan? (Yes) N

- 65.14 3. Does the TSD facility have a 24-hour surveillance system which monitors and controls entry to the active portion of the facility? (Yes) N

Except for Surface Impound If Not meets

- A. Does the facility have an artificial or natural boundary which surrounds active portions of the facility and, Yes
- B. Does the facility have means to control entry at all times, i.e., gates, attendants, locked entrances, etc.? Yes N

- 65.14 4. Does the TSD facility have a restricted access sign posted at each entrance to the active portion of the facility? An example would be: "Danger-Unauthorized Personnel Keep Out!" (Yes) N

- 65.15 5. Does the TSD facility have a written schedule for inspecting all emergency equipment and monitoring equipment, security devices, and operating and structural equipment. Yes N
- 65.16(a) 6. Have facility personnel successfully completed a program of classroom training or on-the-job training in hazardous waste management procedures? Yes N
- 65.16(d) 7. Does the TSD facility maintain a record of job titles for all personnel that are involved with the handling of hazardous waste and the name of the employee filling each job? Yes N
- 65.16(d) 8. Does the TSD facility have on record a written position description for each job title noted in Question #7? Yes N
- 65.16(d) 9. Does the facility maintain a written description for the type and amount of introductory and continuing training for those employees noted in Question #7? Yes N
- 65.32 10. Does the TSD facility have installed the following equipment:
- A. An internal communications or alarm system capable of providing immediate emergency instructions to facility personnel if the hazardous waste storage area is threatened by fire or explosion? Yes 1
  - B. A device at the scene of hazardous waste TSD operations capable of summoning emergency assistance from Police, Fire departments, etc.? Yes 1
  - C. Fire control equipment and an adequate supply of fire fighting water or fire suppression chemicals? Yes 1
- 65.35 11. Does the TSD facility have adequate aisle space to allow the unobstructed movement of personnel and equipment during emergencies? Yes 1
- 65.52(a) 12. Does the facility have a contingency plan which contains the following elements:
- A. A detailed description of emergency procedures facility personnel will implement in response to fires, explosions, or unplanned releases of hazardous wastes to air, soil, and water? Yes 1
  - ~~B. A detailed description of arrangements formally agreed to by local police, fire departments, and State and local emergency teams to provide assistance during emergency situations? Mutual Aid Agreement - CARE program Not Formal -~~ Yes 1
  - C. A listing of names, addresses, and phone numbers of the TSD facility emergency response coordinators? Yes 1  
Note: This listing should include names and phone numbers of emergency coordinators available on twenty-four hour basis.
  - D. A list of appropriate emergency equipment necessary to cope with emergencies at the TSD facility? Yes 1

5.55	13. Does the facility have at all times at least one employee either on-call or on the site who is responsible for coordinating all emergency response measures?	Yes	No
	14. Does the on-site or off-site facility have a written operating record which contains the following information:		
65.73(b)(1)	A. A description and the quantity of each hazardous waste received/managed at the on-site or off-site treatment, storage or disposal facility.	Yes	No
5.73(b)(2)	B. The location of each hazardous waste managed at the on-site or off-site facility.	Yes	No
5.73(b)(3)	D. Copies of facility specific waste analysis as required by §§ 265.193, 265.225, 265.252, 265.273, 265.345, 265.375 and 265.402.	Yes	No
5.73(b)(3) & 5.13	C. Written results of all chemical/Physical analyses of each waste treated, stored or disposed of at the facility.	Yes	No
5.73(4)	E. Summary reports of incidents requiring implementation of the contingency plan.	N/A Yes	No
5.73(b)(5) & 5.15(d)	F. Records and results of all inspections (see #5) in an inspection log or summary.	Yes	No
5.73(b)(6)	G. Results from groundwater monitoring (For surface impoundments, land treatment or land disposal facilities). Attached	Yes	No
5.73(b)(7)	H. Closure cost estimate.	Yes	No
	I. Post Closure cost estimate (land disposal facilities only)	Yes	No
5.110	15. Has the TSD facility operator completed a written closure or post closure plan in order to meet the May 1981 date for implementation of these requirements?		
	Does the TSD facility have:		
	A. Written Closure Plan	Yes	No
	B. Written Post Closure Plan (land disposal Facility only)	Yes	No
	16. Does the TSD facility receive waste from off-site generators?	Yes	No
	If yes, does the operator implement the following procedures:		
65.13(a)(4)	A. Inspect or analyze incoming wastes and compare with manifest for each shipment received at the facility.	Yes	No
65.13(b)	B. Specify procedures in the waste analysis plan to carry out #16A.	Yes	No
65.71	C. Sign and date all manifest copies?	Yes	No
65.71	D. Return copies of the manifest to the generator and transporter?	Yes	No
65.71	E. Retain copies of all manifests at the facility for three years?	Yes	No

Questions 17-22 apply to surface impoundments, land treatment and land disposal facilities.



	17.	Has the operator installed a groundwater monitoring system which consists of:	Yes	No
5.91	A.	At least one well hydraulically upgradient at the limit of waste management area?	Yes	No
	B.	At least 3 wells hydraulically downgradient at the limit of the waste management area?	Yes	No
5.91(c)	18.	Are all monitoring wells cased in a manner to prevent contamination of samples and groundwater?	Yes	No
5.90(a)	19.	Do wells monitor groundwater in the uppermost aquifer underlying the facility? <i>Columbiana Aquifer 30-50ft</i>	Yes	No
5.92(a)	20.	Has the operator developed and followed groundwater sampling and analysis plan?	Yes	No
	21.	Does the plan include methods for establishing concentrations of parameters characterizing...	Yes	No
	A.	Groundwater Suitability (265.92(b)(1))	Yes	No
	B.	Groundwater quality (265.92(b)(2))	Yes	No
	C.	Groundwater contamination (265.92(b)(3)).	Yes	No
	22.	Has the groundwater monitoring program been implemented by a qualified geologist or geotechnical engineer?	Yes	No
	23.	The inspector should check for the following conditions at the TSD facility:		
	A.	Open fires	Yes	No
	B.	Fumes or gases	Yes	No
	C.	Leaks or corrosion in containers or other storage structures	Yes	No
	D.	Leachate to receiving streams	Yes	No
	E.	Malfunction of equipment	Yes	No
	F.	Bulging drums	Yes	No
	G.	Excessive heat generation from storage facilities, lagoons, storage piles, etc.	Yes	No
	24.	Please provide detailed comments and explanations on specific checklist items or problems encountered during the TSD facility inspection. For instance, industry requests for clarification of specific rules and regulations and their applicability at the facility can be noted below or described in a separate memo attached to the inspector's checklist.		

1-11-89

Generator Checklist - Land Ban Inspections

268.30 1. Does the facility generate F - solvent wastes (i.e., F001 - F005)? Yes ☒ No

268.31 2. Does the facility generate Dioxin wastes (i.e., F020, F021, F022, F023, F026, F027, or F028)? Yes ☒ No

268.32 3. Does the facility generate waste on the California List (see definition below)? Yes No

Liquid - pH  $\leq$  2 Yes ☒ No

Liquid - PCB  $\geq$  50 ppm Yes ☒ No

Liquid/Non-Liquid - HOC  $>$  1000 mg/l Yes ☒ No

Liquid - Cyanides  $\geq$  1000 mg/l Yes ☒ No

Liquid - Metals as follows Yes ☒ No

Arsenic  $>$  500 mg/l  
Cadmium  $>$  100 mg/l  
Chromium  $>$  500 mg/l  
Lead  $>$  500 mg/l  
Mercury  $>$  20 mg/l  
Nickel  $>$  134 mg/l  
Selenium  $>$  100 mg/l  
Thallium  $>$  130 mg/l

268.10 4. Does the facility generate any waste on the first third list? ☒ Yes No

If yes, circle the appropriate ones on the attached listing.

261.31 5. Is there evidence to indicate that an F001 - F005 solvent waste was misclassified as a listed "U" waste? Yes ☒ No ☒ N/A

If yes, describe

---

---

---

---

6. Does waste analysis data indicate that a soft hammer "F", "K", "P" or "U" listed waste may qualify as a California List waste because of HOC, metals or cyanide content?

Yes

☒ No

N/A

If yes, describe

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. Have any hazardous wastes been reclassified recently from one list code to another thereby impacting its LDR status?

Yes

☒ No

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 268.41(b) 8. Does the generator mix restricted wastes having different treatment standards for the same constituent(s) prior to shipping off-site?

Yes

☒ No

If yes, was the most stringent treatment standard for the constituent(s) shown on the notification?

Yes

No

9. Is there evidence to indicate that a treatability group (i.e., wastewater (< 1% TOC) or other) of a F solvent waste was incorrectly determined?

Yes

No

☒ N/A

If yes, describe

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Subpart B—Schedule for Land Disposal Prohibition and Establishment of Treatment Standards

Source: 51 FR 19305, May 28, 1986, unless otherwise noted.

§ 268.10 Identification of wastes to be evaluated by August 8, 1988.

EPA will take action under sections 3004(g)(5) and 3004(m), of the Resource Conservation and Recovery Act, by August 8, 1988, for the following wastes (for ease of understanding the wastes have been listed by the section of 40 CFR Part 261 under which they were listed):

### § 261.31 Wastes

F006—Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

F007—Cyanide plating bath solutions from electroplating operations.

F008—Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process.

F009—Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.

F019—Wastewater treatment sludges from the chemical conversion coating of aluminum.

### § 261.32 Wastes

K001—Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.

K004—Wastewater treatment sludge from the production of zinc yellow pigments.

K008—Over residue from the production of chrome oxide green pigments.

K011—Bottom stream from the wastewater stream in the production of acrylonitrile.

K013—Bottom stream from the acetonitrile column in the production of acrylonitrile.

K014—Bottoms from the acetonitrile purification column in the production of acrylonitrile.

K015—Still bottoms from the distillation of benzyl chloride.

K016—Heavy ends or distillation residues from the production of carbon tetrachloride.

K017—Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.

K018—Heavy ends from the fractionation column in ethyl chloride production.

K020—Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.

K021—Aqueous spent antimony catalyst waste from fluoromethanes production.

K022—Distillation bottom tars from the production of phenol/acetone from cumene.

K024—Distillation bottoms from the production of phthalic anhydride from naphthalene.

K030—Column bottom or heavy ends from the combined production of trichloroethylene and perchloroethylene.

K031—By-products salts generated in the production of MSMA and cacodylic acid.

K035—Wastewater treatment sludges generated in the production of creosote.

K036—Still bottoms from toluene reclamation distillation in the production of disulfoton.

K037—Wastewater treatment sludge from the production of disulfoton.

K044—Wastewater treatment sludges from the manufacturing and processing of explosives.

K045—Spent carbon from the treatment of wastewater containing explosives.

K046—Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.

K047—Pink/red water from TNT operations.

K048—Dissolved air flotation (DAF) float from the petroleum refining industry.

K049—Stop oil emulsion solids from the petroleum refining industry.

K050—Heat exchange bundle cleaning sludge from the petroleum refining industry.

K051—API separator sludge from the petroleum refining industry.

K052—Tank bottoms (lead) from the petroleum refining industry.

K060—Ammonia still lime sludge from coking operations.

K061—Emission control dust/sludge from the primary production of steel in electric furnaces.

K062—Spent pickle liquor from steel finishing operations in chlorine production.

K069—Emission control dust/sludge from secondary lead smelting.

K071—Brine purification muds from the mercury cells process in chlorine production, where separately prepurified brine is not used.

K073—Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes.

K083—Distillation bottoms from aniline production.

K084—Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K085—Distillation of fractionation column bottoms from the production of chlorobenzenes.

K086—Solvent washes and sludges; caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.

K087—Decanter tank tar sludge from coking operations.

K099—Untreated wastewater from the production of 2,4-D.

K101—Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K102—Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K103—Process residues from aniline extraction from the production of aniline.

K104—Combined wastewater streams generated from nitrobenzene/aniline production.

K106—Waste water treatment sludge from the mercury cell process in chlorine production.

### § 261.33(a) Wastes

P001—Warfarin, when present at concentration greater than 0.3%

P004—Aldrin

P005—Allyl alcohol

P010—Arsenic acid

P011—Arsenic (V) oxide

P012—Arsenic (III) oxide

P015—Beryllium dust

P016—Bis-(chloromethyl) ether

P018—Brucine

P020—Dinoseb

P030—Soluble cyanide salts not elsewhere specified

P036—Dichlorophenylamine

P037—Dieldrin

P039—Disulfoton

P041—Diethyl-p-nitrophenyl phosphate

P048—2,4-Dinitrophenol

P050—Endosulfan

P058—Fluoroacetic acid, sodium salt

P059—Heptachlor

P063—Hydrogen cyanide

P068—Methyl Hydrazine

P069—Methylacetonitrile

P070—Aldicarb

P071—Methyl parathion

P081—Nitroglycerine

P082—N-Nitrosodimethylamine

P084—N-Nitrosomethylvinylamine

P087—Osmium tetroxide

P089—Parathion

P092—Phenylmercuric acetate

P094—Phorate

P097—Pamphur

P102—Propargyl alcohol

P105—Sodium azide

P108—Strychnine and salts

P110—Tetraethyl lead

P115—Thallium (I) sulfate

P120—Vanadium pentoxide

P122—Zinc phosphide, when present at concentrations greater than 10%

P123—Toxaphene

### § 261.33(c) Wastes

U007—Acrylamide

U009—Acrylonitrile

U010—Mitomycin C

U012—Aniline

U016—Benz(c)acridine

U018—Benz(a)anthracene

U019—Benzene

U022—Benzo(a)pyrene

U029—Methyl bromide

U031—n-Butanol

U036—Chlordane, technical

U037—Chlorobenzene

U041—n-Chloro-2,3-epoxypropene

U043—Vinyl chloride

U044—Chloroform

U046—Chloromethyl methyl ether

U050—Chrysene

U051—Creosote

U053—Crotonaldehyde

U061—DDT

U063—Dibenz o (a, h) anthracene

U064—1,2,7,8 Dibenzo-pyrene

U066—Dibromo-3-chloropropane 1,2-

U067—Ethylene dibromide

U074—1,4-Dichloro-2-butene

U077—Ethane, 1,2-dichloro-

U078—Dichloroethylene, 1,1-

U086—N,N Diethylhydrazine

U089—Diethylstilbestrol

U103—Dimethyl sulfate

U105—2,4-Dinitrotoluene

U108—Dioxane, 1,4-

U115—Ethylene oxide

U122—Formaldehyde

U124—Furan

U129—Lindane

U130—Hexachlorocyclopentadiene

U133—Hydrazine

U134—Hydrofluoric acid

U137—Indeno(1,2,3-cd)pyrene

U151—Mercury

U154—Methanol

U155—Methapyriline

U157—3-Methylcholanthrene

U158—4,4-Methylene-bis-(2-chloroaniline)

U159—Methyl ethyl ketone

U171—Nitropropane, 2-

U177—N-Nitroso-N-methylurea

U180—N-Nitrosopyrrolidine

U185—Pentachloronitrobenzene

U188—Phenol

U192—Pronamide

U200—Reserpine

U206—Tetrachloroethane, 1,1,2,2-

U210—Tetrachloroethylene

U211—Carbon tetrachloride

U219—Thiourea

U220—Toluene

U221—Toluenediamine

U223—Toluene diisocyanate

U226—Methylchloroform

U227—Trichloroethane, 1,1,2-

U228—Trichloroethylene

U237—Uracil mustard  
U238—Ethyl carbamate  
U248—Warfarin, when present at concentrations of 0.3% or less  
U249—Zinc phosphide, when present at concentrations of 10% or less

\* Not soft harm

F006*	K073	P084	U077	U248
7	83	87	78	249
8	84	89	86	
9	85	92	89	
19	86	94	103	
K001*	87*	97	105	
4	99*	102	108	
8	100	105	115	
11	101	108	122	
13	102	110	124	
14	103*	115	129	
15*	104*	120	130	
16*	106	122	133	
17		123	134	
18*	P001		137	
19*	4	U007	151	
20*	5	9	154	
21	10	10	155	
22	11	12	157	
24*	12	16	158	
30*	15	18	159	
31	16	19	171	
35	18	22	177	
36	20	29	180	
37*	30	31	185	
44*	36	36	188	
45*	37	37	192	
46	39	41	200	
47*	41	43	209	
48*	48	44	210	
49*	50	46	211	
50*	58	50	219	
57*	59	51	220	
52*	63	53	221	
60	68	61	223	
61	69	63	226	
62*	70	64	227	
69	71	66	228	
71*	81	67	237	
	82	74	238	

---

\* = Not Soft Hammer

10. Is there evidence to indicate that a liquid/non-liquid classification of a California List waste was incorrectly determined (i.e., failure to perform paint filter liquids test?)

Yes

No

☒ N/A

If yes, describe

---



---



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11. Is there evidence to indicate that a wastewater/non-wastewater (>1% TOC and >1% TSS) designation of a first third waste was incorrectly determined:

Yes

☒ No

N/A

If yes, describe

---



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- 68.3 12. Is any restricted waste being diluted as a substitute for treatment?

Yes

☒ No

- 68.7(a) 13. Did the generator determine its waste was restricted from land disposal by

a. testing the waste or an extract of the waste

☒ Yes

No

b. knowledge of waste and the process from which it was generated?

☒ Yes

No

If the waste is shipped off-site, answer questions 17-19

- 18.7(a)(1) 14. Does the generator notify the treatment/storage facility of appropriate treatment standards or prohibition levels if waste exceeds these standards/levels? ☒ Yes    No    N/A
- 18.7(a)(2) 15. Does the generator submit a notice and certification to the treatment disposal facility that the waste can be land disposed if it meets the applicable treatment standards or prohibition levels? ☒ Yes    No    N/A
- 18.7(a)(3) 16. Does the generator submit a notice to the treatment/disposal facility that the restricted waste can be land disposed if subject to a case by case extension, an exemption or a nationwide variance? Yes    No    ☒ N/A
- 18.7(a)(6) 17. Has the generator retained in on-site files
- a. All data used to support the status of the waste (i.e., restricted or non restricted) including knowledge of waste and test results? ☒ Yes    No
  - b. Copy of waste analysis plan? ☒ Yes    No    N/A
  - c. Copies of all notices and certifications that were sent to treatment/disposal facilities? *Observed in files* Yes    ☒ No    N/A

Answer the following question if the generator stores on-site a restricted waste

- 18.50(a)(1) 18. Is the restricted waste stored for accumulation to facilitate proper recovery, treatment or disposal? ☒ Yes    No

Answer the following questions if the generator disposes of its soft hammar waste off-site in a landfill or surface impoundment

- 18.8(a)(1) 19. Has the generator made a good faith effort to locate and contract with treatment/recovery facilities that are practically available and will provide the greatest environmental benefit? ☒ Yes    No
-

If yes, is adequate supportive material available?

☒ Yes    No

- 3.8(a)(2)(i) 20. If a generator determines that there is no practically available treatment for its waste, does adequate documentation exist to substantiate this claim? ☒ Yes    No    N/A
- 3.8(a)(2) 21. Did the generator submit a demonstration and certification to the Regional Administrator stating that a good faith effort was made to locate a suitable treatment or recovery facility? *Submitted on 10-13-88* ☒ Yes    No
- 3.8(a)(2)(ii) 22. Has the generator actually contracted with such a treatment/recovery facility? *blanket purchase order for set period of time* ☒ Yes    No
- 3.8(a)(3) a. is a copy of the demonstration and/or certification submitted to the facility receiving the waste? *?*    Yes    No
- 3.8(a)(3) b. does the generator retain copies of these demonstrations and certifications?    Yes    ☒ No



RCRA Checklist for Tanks

(Subpart J Section 265.192 - "General Operating Requirements")

R.O. USE

Inspection file No: \_\_\_\_\_

Reviewer: \_\_\_\_\_

Date Reviewed: \_\_\_\_\_

Form "J"

Name of Facility: OXY-chem 3-28-89  
 Address: River Road  
Delaware City, Del 19706  
 EPA Generator ID Number: IN DED003913266  
 Facility Inspection Representative: R. Timmons  
 Title: Technical Mgr  
 Telephone Number: 302- 884-3831

The questions contained in this checklist apply to owners and operators of facilities that use tanks to treat or store hazardous waste, except as Section 265.1 provides otherwise.

Pert. Regs.  
 40 C.F.R.  
 Part:

- |                         |  |                                      |                          |
|-------------------------|--|--------------------------------------|--------------------------|
| 265.17(b)               | 1. Are all tanks in good condition, i.e., not showing signs of leakage, corrosion, or any other deterioration?   | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
| 265.192(c)              | 2. Are uncovered tanks operated to ensure a minimum of 2 ft. of freeboard? <u>Covered tank</u>   | <input type="radio"/> Yes            | <input type="radio"/> No |
| 265.192(c)              | 3. If not, is the tank equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank) with a capacity that equals or exceeds the volume of top 2 ft. of the tank? <u>N/A</u> | <input type="radio"/> Yes            | <input type="radio"/> No |
| 265.192(d)              | 4. Are tanks with continuous inflow of hazardous wastes equipped with a means to stop this inflow (e.g., waste feed cut-off system or by-pass to a standby tank)? <u>N/A</u>   | <input type="radio"/> Yes            | <input type="radio"/> No |
| 265.193(a)<br>(1) & (2) | 5. Are waste analyses conducted or written documentation obtained before placing a substantially different hazardous waste into a tank used for storage or treatment? <u>dedicated tanks</u> <u>N/A</u>  | <input type="radio"/> Yes            | <input type="radio"/> No |
| 265.194(a)<br>(1)       | 6. Are daily inspections conducted for discharge control equipment (e.g., by-pass systems, waste feed cutoff systems and drainage systems)?  | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
| 265.194(a)<br>(2)       | 7. Is data gathered from monitoring equipment (e.g., pressure and temperature gauges) at least once each operating day? <u>Site level</u> <u>N/A</u>   | <input type="radio"/> Yes            | <input type="radio"/> No |
| 265.194(a)<br>(3)       | 8. Is the level of waste in the tank checked at least once each operating day?   | <input checked="" type="radio"/> Yes | <input type="radio"/> No |

- |                  |   |                                      |                                     |
|------------------|---|--------------------------------------|-------------------------------------|
| 65.194(a)<br>(4) | 9. Is (are) the tank (or tanks) inspected weekly to detect corrosion or leaking of fixtures or seams?   | <input checked="" type="radio"/> Yes | <input type="radio"/> No            |
|                  | 10. Are the results of these inspections recorded in an inspection log or summary?  | <input checked="" type="radio"/> Yes | <input type="radio"/> No            |
| 65.198           | 11. Are ignitable or reactive wastes stored in tanks? If so,  | Yes                                  | <input checked="" type="radio"/> No |
| 65.198(a)<br>(1) | a) Is the waste treated, rendered, or mixed before or immediately after placement in the tank so that the resulting waste, mixture, or dissolution of materials no longer meets the definition of ignitable or reactive wastes under Parts 261.21 or 261.23 of the RCRA Regs?                             | Yes                                  | <input type="radio"/> No            |
| 65.198(a)<br>)   | b) Is the waste stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react?  | Yes                                  | <input type="radio"/> No            |
| 65.198(b)        | c) Is the owner/operator of a facility which treats or stores ignitable or reactive wastes in covered tanks in compliance with the National Fire Protection Association's (NFPA's) buffer zone requirements for tanks contained in tables 2-1 through 2-6 of the "Flammable and Combustible Code - 1977"? | Yes                                  | <input type="radio"/> No            |

Inspector's Name : Houghton

Title: ERL

Agency: \_\_\_\_\_

Office location: \_\_\_\_\_

~~Date of Inspection:~~ \_\_\_\_\_

Inspector's Name: \_\_\_\_\_

Title: \_\_\_\_\_

Agency: \_\_\_\_\_

Office location: \_\_\_\_\_

Date of Inspection : \_\_\_\_\_

RCRA Checklist for Surface Impoundments

(Subpart K Section 265.222 "General Operating Requirements")

R.O. USE

Inspection file No:

Name of Facility: OXY-Chem 3-28-89

Address: River Road

Delaware City, Del. 19

EPA Generator ID Number: DED 00 3913266

Facility Inspection Representative: R. Timmons

Title: Tech. MGR

Telephone Number: 302-834-3831

Reviewer:

Date Reviewed:

Form "K"

The questions contained in this checklist apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as Part 265.1 provides otherwise.

Pert. Regs.  
40 C.F.R.  
Part:

Stop using 11-8-88  
See memo

- |                            |  |  |
|----------------------------|--|--|
| 265.222                    | 1. Is 2 ft. of freeboard maintained in the surface impoundment?  | (Yes) No   |
| 265.223                    | 2. Do all earthen dikes have protective covers (e.g., grass, shale or rock) to minimize wind and water erosion and to preserve dike structural integrity?  | (Yes) No   |
| 265.225(a)<br>(1) &<br>(2) | 3. Are waste analyses conducted or written documentation obtained before placing a substantially different hazardous waste into a surface impoundment used for storage or treatment?   | N/A<br>Yes No  |
| 265.226(a)<br>(1)          | 4. Is the freeboard level inspected at least once each operating day? <u>wh</u>  | (Yes) No   |
| 265.226(a)<br>(2)          | 5. Is the surface impoundment, including dikes and vegetation, inspected once per week to detect leaks or deterioration or failures in the impoundment?  | Inspections Not Accomplished Aft<br>Yes No<br>closures |
|                            | 6. Are the results of these inspections recorded in an inspection log or summary?  | Yes No   |
| 265.229(a)                 | 7. Are ignitable or reactive wastes stored in a surface impoundment: If so,  | Yes (No)   |
| 265.229(a)<br>(1)          | a) Is the waste treated, rendered, or mixed before or immediately after placement in the impoundment so that the resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under parts 261.21 or 261.23 of the RCRA regulations? | Yes No   |

65.230

b) Are incompatible wastes segregated in separate surface impoundments so that spontaneous reactions are avoided?

Yes

No

Inspector's Name: Houghton ERL

Title: \_\_\_\_\_

Agency: \_\_\_\_\_

Office location: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Inspector's Name: \_\_\_\_\_

Title: \_\_\_\_\_

Agency: \_\_\_\_\_

Office location: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

DATE \_\_\_\_\_

CELL ROOM/CELL REPAIR

MERCURY WASTE CONTAINER CHECKLIST  
(DRUMS & DUMPSTERS)

1. Are containers properly labelled? Y N

Hazardous Waste - D009  
Waste Description (Trash, graphite, etc.)  
Date waste put into container  
Retortable or Non-retortable

2. Is the container properly dated? Y N

3. Are dumpsters covered? Y N

4. Are drums covered and lid secured? Y N

5. Is there any evidence of container deterioration?

Y N

6. Is there any evidence of spills? Y N

7. Amount of mercury received from retorts: \_\_\_\_\_ lbs.

Number of drums moved directly to retort area: \_\_\_\_\_  
(Please complete each time drums are moved.)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_

-----  
TO: Plant Supervision/Bulletin Boards/Contractors  
FROM: Tom Horvath  
DATE: November 7, 1988  
-----

SUBJECT: Brine Sludge Landfill

Effective Wednesday, November 9, 1988, no wastes may be placed in the brine sludge landfill. This impoundment will remain uncovered until Spring when a final cover will be installed.



Tom Horvath

mam



2046464/465	WORK ORDER	TERMS <b>NET 35</b>	721-49-913-000310		
REQUISITIONER <b>Tom Horvath</b>	APPROVED BY <b>R. W. Moore</b>	APPROVED BY	DELIVER TO	LOCATION	VENDOR <b>2094907</b>



**OCCIDENTAL CHEMICAL CORPORATION**  
 AS AGENT FOR  
 OCCIDENTAL ELECTROCHEMICALS CORPORATION  
 ELECTROCHEMICALS DIVISION  
 P.O. BOX 286 • DELAWARE CITY, DELAWARE 19706-0286  
 302-834-3600

**PURCHASE ORDER**

PAGE 1 OF **3**

THIS NUMBER MUST APPEAR ON ALL CRATES, PACKAGES, INVOICES, TRANSPORTATION PAPERS AND CORRESPONDENCE.

**B- 2494**

REVISION NO.

TC **CHEMICAL WASTE MANAGEMENT, INC.**  
 ONE GREENTREE CENTRE - Suite 201  
 MARLTON, NEW JERSEY 08053

SHIP TO ☒ **RIVER ROAD**  
**DELAWARE CITY, DELAWARE**

Attn: Barry Shockley

PURCHASE ORDER DATE <b>3/2/89</b>		PAYMENT TERMS <b>NET 35</b>		DELIVERY DATE <b>1/1/89 - 12/31/89</b>		IF UNABLE TO COMPLY WITH DATE SHOWN - PLEASE ADVISE AT ONCE	
<input checked="" type="checkbox"/> OR TRUCK	<input type="checkbox"/> UPS	<input type="checkbox"/> TANK TRUCK	F.O.B.		<input type="checkbox"/> FRT. ALLOWED	<input type="checkbox"/> PREPAY & ADD	
<input type="checkbox"/> OR FREIGHT	<input type="checkbox"/> RAIL	<input type="checkbox"/>	<b>JOB SITE</b>		<input type="checkbox"/> FRT. COLLECT	<input type="checkbox"/>	
LINE NO.	QUANTITY	U/M	DESCRIPTION			UNIT PRICE	EXTENDED PRICE
<b>1</b>			<p>[Annual Cost of this Order not to exceed \$200,000.00]</p> <p><b>This PURCHASE ORDER CONTRACT authorizes Chemical Waste Management, Inc. to transport, process and dispose of certain hazardous waste materials generated by Occidental Chemical Corporation, Delaware City, Delaware, plant facility.</b></p> <p><b>The term of this purchase Order Contract shall cover the period from JANUARY 1, 1989, through DECEMBER 31, 1989.</b></p> <p><b>Occidental will be charged in accordance with those rates shown in Exhibits A and B, attached. All prices contained in this agreement are <u>not subject</u> to escalation through the contract duration of January 1, 1989, through December 31, 1989.</b></p> <p><b>Chemical Waste Management agrees to extend at all times to Occidental Chemical Corporation the benefit of the lowest and most favorable prices, terms and conditions offered or provided by Chemical Waste Management to any other customer purchasing similar services.</b></p> <p><b>No new waste streams or hazardous materials may be added to this contract unless done so by a formal</b></p>				
			CONTROL NO. <b>066527</b>		(Continued)		

THIS ORDER EXPRESSLY LIMITS ACCEPTANCE TO THE TERMS ON THE FACE AND BACK HEREOF AND ANY ADDITIONAL OR DIFFERENT TERMS PROPOSED BY THE SELLER ARE OBJECTED TO AND REJECTED UNLESS EXPRESSLY ASSENTED TO IN WRITING BY THE BUYER.  
 OCCIDENTAL CHEMICAL CORPORATION

INVOICE TO

INVOICES AND APPROPRIATE TRANSPORTATION PAPERS, IN TRIPLICATE, ARE TO BE SENT TO:

OCCIDENTAL CHEMICAL CORPORATION

P.O. BOX 286  
 DELAWARE CITY, DELAWARE 19706-0286  
 ATTN: ACCOUNTS PAYABLE

AUTHORIZED PURCHASING SIGNATURE

**OxyChem**

# Occidental Chemical Corporation

AS AGENT FOR  
 OCCIDENTAL ELECTROCHEMICALS CORPORATION  
 ELECTROCHEMICALS DIVISION  
 P.O. BOX 289 • DELAWARE CITY, DELAWARE 19706-0289  
 302-834-3800

## PURCHASE ORDER CONTINUATION

PURCH. ORDER NO. <b>D-B 2494</b>	RELEASE NO.
DATE <b>3/2/89</b>	PAGE <b>2</b> OF <b>3</b>

LINE NO.	QUANTITY	U/M	COMMODITY CODE	DESCRIPTION	PRICE PER UNIT OF ISSUE	EXTENDED PRICE
				<p>supplement authorized by the Delaware City Purchasing Department.</p> <p>All terms and conditions for this contract will be in accordance with those as specified in the 6/2/86 "National Agreement" between Occidental Chemical Corporation and Chemical Waste Management and disposed of in accordance with all rules, laws, regulations and permits pertaining to the storage, treatment, transportation and disposal of hazardous/chemical wastes.</p> <p>The Order of Precedence of the contract documents will be considered as follows:</p> <ol style="list-style-type: none"> <li>Exhibit A - Master Waste System Agreement (Copy already in your file)</li> <li>Face of Owner's P. O. DB 2494 dated 3/2/89</li> <li>Exhibit A - Waste Profile #E68061 COL/OAK - Description/Pricing Exhibit B - Waste Profile #67881 OAK - Description/Pricing</li> </ol> <p>EPA Identification Numbers:</p> <p>Occidental Chemical as Generator: Plant - Delaware City - ID #DE003913266</p> <p>Chemical Waste Management as Disposer: ID #ALD000622464</p> <p>Freehold Transportation as Transporter: ID #NJD054126164</p> <p>All work performed under this contract shall be performed to the entire satisfaction of Occidental's site representative, Mr. Thomas D. Horvath, or his designee.</p> <p>In order to formally execute this contract, the attached acknowledgement copy must be signed and returned to the undersigned within seven (7) working days.</p> <p>(Continued)</p>		

Occidental Chemical Corporation

AUTHORIZED PURCHASING SIGNATURE



EXHIBIT 'A'

WASTE DESCRIPTION:

Shriver Filtercake and Retort Ash

EPA Waste ID Number K106

Waste Profile Number - #E68061 COL/OAK  
In effect until 10/31/89

Acceptance Letter - Contract #E-11-058-88-1

Disposal Location - Emelle, Alabama

Disposal Method - Stabilization - Secure Landfill

Shipment Method - Bulk Dumpsters

# "SOFT-HAMMER" WASTES

## LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM

Generator Name: Occidental Chemical

Manifest Number: 401 660

EPA ID Number: DEDO03913266

CNM Profile Number: COLE 68 06

This form is submitted to Chem Waste in accordance with 40 CFR Part 268, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions on using this form.)

☒ I. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED

The soft-hammer waste I generate is(are) K106  
I have identified a practically available treatment technology that yields the greatest environmental benefit. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.6(a)(1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and contact dates, and a justification that I have chosen the best treatment that is practically available.

I certify under penalty of law that the requirements of 40 CFR 268.6(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) using the best practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ II. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE

The soft-hammer waste(s) I generate or have treated is(are) \_\_\_\_\_  
I have made a good-faith effort to locate and contract with treatment and recovery facilities practically available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.6(a)(2), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates, and an explanation of why no treatment is practically available. This soft-hammer waste must be disposed of in a landfill or surface impoundment meeting the minimum technological standards until treatment standards are set for the waste or May 6, 1990, whichever occurs first.

I certify under penalty of law that the requirements of 40 CFR 268.6(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ III. TREATMENT OR RECOVERY FACILITY HAS TREATED THE WASTE

The following soft-hammer waste(s) was treated in accordance with the generator's demonstration: \_\_\_\_\_

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ IV. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL)

The soft-hammer waste(s) I generate is(are) \_\_\_\_\_ This waste is being disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements of Section II.

Signature

[Signature]

Title

Prod. Mgr.

Date

11/10/88





# Occidental Chemical Corporation

October 13, 1988

Regional Administrator  
U.S. EPA, Region III  
841 Chestnut Building  
Philadelphia, PA 19107

RE: Soft Hammer Demonstration/Certification  
Occidental Chemical Corporation  
Delaware City, DE 19706  
EPA ID NO. DED003913266

Dear Sir:

In accordance with the Environmental Protection Agency's land, disposal restrictions governing the first third scheduled wastes, Occidental Chemical Corporation has enclosed a soft hammer demonstration and certification as per 40 CFR 268.8(a)(1) for EPA waste code K106.

The demonstration reflects our efforts to locate practically available treatment that affords the greatest environmental benefit. Based on our search for such treatment, we have determined that:

STABILIZATION is the best practically available treatment (see attached demonstration for further details).

It should be noted that prior to stabilization, the pollutant of concern, mercury, exhibits a low leachable value, as measured by the TCLP test.

If any further information is required, please contact me at 302-834-3831.

---

**OxyChem**

Electrochemicals, Detergents & Specialty Products  
River Road, P.O. Box 550, Delaware City, Delaware 19706-1550  
302 834-3800

# Occidental Chemical Corporation

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Sincerely,



Thomas D. Horvath  
Environmental Engineer

mam

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# SOFT HAMMER DEMONSTRATION

Attachment 11

FACILITY OWNER	LOCATION	TREATMENT METHOD	TELEPHONE	CONTACT	DATE	EXPLANATION
1. Cecos Int'l.	56th & Pine Ave. Niagara Falls, NY 14304	Stabilization	201-248-0500	Rick Wigal	9/26/88	G, J, K, O, P
2. Envirosafe Services	876 Otter Creek Rd. Oregon, OH 43616	Stabilization	215-962-0800	Richard Pastor	9/26/88	G, J, K, O, P (also not present permitted to accept K106)
3. Chemical Waste Management	Alabama Highway 17 Emelle, AL 35459	Stabilization	609-243-7800	Joseph D'Angelo	10/5/88	G, J, K, O, P

\* See Attachment 4 for explanations.

# ATTACHMENT 4

## FIRST THIRD "SOFT-HAMMER DEMONSTRATION

Soft-Hammer Waste For Which Alternative Treatment or Recovery Has Been Located

A

Rotary Kiln Incineration is a practically available technology that yields the greatest environmental benefit. This waste is principally organic residues which are best destroyed by incineration.

B

Liquid Injection Incineration is a practically available technology that yields the greatest environmental benefit. This waste is principally pumpable organic residues which are best destroyed by incineration.

C

Fuels Blending is a practically available technology that yields the greatest environmental benefit. This waste has a heating value greater than or equal to 5,000 BTU per pound and can be best reused as a hazardous waste fuel.

D

A combination of Fuels Blending, and/or Rotary Kiln or Liquid Injection is a practically available technology that yields the greatest environmental benefit. This is due to the properties of my waste which may vary slightly, from one load to the next. Solid nondispersible residues will need to be incinerated; but the pumpable or dispersible portions may be blended for hazardous waste fuels usage (when the BTU's, chlorine, ash, etc. are within the required ranges); or el incinerated.

E

Chemical Precipitation (with filtration or decanting) is a practically available technology that yields the greatest environmental benefit. This should reduce the toxicity/mobility of the hazardous constituents by reducing the toxic volume of waste.

F

Filtration is a practically available technology that yields the greatest environmental benefit. This should reduce the toxicity/mobility of the hazardous constituents by reducing the toxic volumes of the waste.

G

Stabilization is a practically available technology that yields the greatest environmental benefit. Stabilization will reduce the mobility of the hazardous constituents of the waste. I have examined recovery and destruction technologies found that they were not practically available for the following reason(s):

H

Chemical oxidation is a practically available technology that yields the greatest environmental benefit. Chemical oxidation will reduce the toxicity of hazardous constituents in the waste.

This waste is not suitable for incineration or fuels due to:

I

the low percentage of hazardous organic constituents presents,

J

the low heating value of the waste,

K

the high percentage of inorganic constituents present,

L

the lack of located available capacity of incineration or fuels blending facilities

This waste is not suitable for recovery due to:

M

The hazardous constituents are present in concentrations that make recovery technologically impossible.

N

The hazardous constituents are present in concentrations that make recovery economically infeasible.

O

No recovery facilities were located that could treat this type of waste.

P

No recovery facilities were located that had capacity to treat this type of waste.

Q

The treatment technology identified above is a past practice that has been demonstrated to meaningfully reduce the toxicity and/or mobility of the waste.





# HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

(Form designed for use on elite (12-pitch) typewriter.)

print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. D E D 0 0 3 9 1 3 2 6 6 0 0 1 9 0		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.							
3. Generator's Name and Mailing Address Occidental Chemical Corporation River Road, Delaware City, DE 19706						A. State Manifest Document Number <b>CWMA 401662</b>									
4. Generator's Phone (302) 834-3856						B. State Generator's ID									
5. Transporter 1 Company Name Freehold Cartage						C. State Transporter's ID <b>21695</b>									
6. US EPA ID Number N J D 0 5 4 1 2 6 1 6 4						D. Transporter's Phone 201-462-1001									
7. Transporter 2 Company Name						E. State Transporter's ID									
8. US EPA ID Number						F. Transporter's Phone									
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459						G. State Facility's ID									
10. US EPA ID Number A L D 0 0 0 6 2 2 4 6 4						H. Facility's Phone <b>205/652-9721</b>									
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.			
a. Hazardous waste, Solid, N.O.S., ORM-E, NA 9189, RQ (K106) CWM Profile Number COLE 68061						0 0 1 C M		36050 <del>77230</del>		P		K 1 0 6			
b. CWM Profile Number															
c. CWM Profile Number															
d. CWM Profile Number															
J. Additional Descriptions for Materials Listed Above Mercury contaminated Shriver filtercake and retort ash. P.O. #AB224963-74DC						K. Handling Codes for Wastes Listed Above a. D-84 Landfill b. c. d.									
15. Special Handling Instructions and Additional Information certify that no absorbents were added to above waste which would prohibit its being landfilled per RCRA 3004 (C-1). Avoid skin contact.															
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						Printed/Typed Name Thomas D. Horvath						Signature <i>Thomas D. Horvath</i>		Month Day Year 11/1/88	
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name Thomas McIntyre						Signature <i>Thomas McIntyre</i>		Month Day Year 11/1/88	
18. Transporter 2 Acknowledgement of Receipt of Materials						Printed/Typed Name						Signature		Month Day Year	
19. Discrepancy Indication Space															
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						Printed/Typed Name Kent Jones						Signature <i>Kent Jones</i>		Month Day Year 11/1/88	

## LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM

Generator Name: Occidental Chemical Corp.Manifest Number: CWMA 401662ID Number: DED 003913266CWM Profile Number: COLE 68061

This form is submitted to Chem Waste in accordance with 40 CFR Part 268, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions on using this form.)

☒ I. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED

The soft-hammer waste(s) I generate is(are) K106. I have identified a practically available treatment technology that yields the greatest environmental benefit. Together with the initial shipment of waste represented by this form, I have submitted a demonstration in accordance with 40 CFR 268.8(a)(1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and intact dates, and a justification that I have chosen the best treatment that is practically available.

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ II. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE

The soft-hammer waste(s) I generate or have treated is(are) \_\_\_\_\_. I have made a good-faith effort to locate and contract with treatment and recovery facilities practically available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Together with the initial shipment of waste represented by this form, I have submitted a demonstration in accordance with 40 CFR 268.8(a)(2), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates, and an explanation of why no treatment is practically available. This soft-hammer waste must be disposed of in a landfill or surface impoundment meeting the minimum technological standards until treatment standards are set for the waste or May 8, 1990, whichever occurs first.

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ III. TREATMENT OR RECOVERY FACILITY HAS TREATED THE WASTE

The following soft-hammer waste(s) was treated in accordance with the generator's demonstration: \_\_\_\_\_

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ IV. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL)

The soft-hammer waste(s) I generate is(are) \_\_\_\_\_. This waste is being disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements of Section II.

Signature: James D. HowardTitle: Env. EngrDate: 11/11/88





# HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. D E D 0 0 3 9 1 3 2 6 6 0 0 1 9	Manifest Document No. 1	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address Occidental Chemical Corporation River Road, Delaware City, DE 19706				A. State Hazardous Waste Number CWMA-401663			
4. Generator's Phone (302) 834-3800				B. Date Generator's ID			
5. Transporter 1 Company Name Freehold Cartage				C. State Transporter's ID 1225-1622			
6. US EPA ID Number N J D 0 5 4 1 2 6 1 6 4				D. Transporter's Phone 201-462-1001			
7. Transporter 2 Company Name				E. State Transporter's ID			
8. US EPA ID Number				F. Transporter's Phone			
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459				G. State Facility's ID 10. US EPA ID Number A L D 0 0 0 6 2 2 4 6 4			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) a. Hazardous Waste, Solid, H.O.S., ORM-E, NA9189 (K106), RQ CWM Profile Number COLE 68061				12. Containers No. Type	13. Total Quantity 23800	14. Unit Wt/Vol P	15. Waste No. E 1 0 4
b. CWM Profile Number							
c. CWM Profile Number							
d. CWM Profile Number							
J. Additional Descriptions for Materials Listed Above Mercury contaminated Shrivels filtercake and retort ash. and that disposal in a landfill or surface impoundment is not economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.				K. Handling Codes for Waste Listed Above D-81			
Special Handling Instructions and Additional Information I certify that no absorbents were added to above waste which would prohibit its being landfilled per RCRA 3004 (C-1). Avoid skin contact.							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name Alan L. Inler				Signature		Month Day Year 1 2 2 7 8 8	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Thomas D. Ho				Signature		Month Day Year 1 2 2 7 8 8	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name							
Signature				Month Day Year			

LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM  
FIRST-THIRD WASTES FOR WHICH NO TREATMENT STANDARDS HAVE BEEN SET  
("SOFT-HAMMER" WASTES RESTRICTED AS OF AUGUST 8, 1988)

3/12/88

Generator Name: Occidental Chemical CWM Profile Number: 68061  
EPA ID Number: DE0003913266 Manifest Number: CWNA 401663

This form is submitted to Chemical Waste Manager in accordance with 40 CFR Part 268, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions on using this form.)

☒ I. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED

The soft-hammer waste I generate is(are) K106. I have identified a practically available treatment technology that yields the greatest environmental benefit. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.8(a)(1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and contact dates and a justification that I have chosen the best treatment that is practically available.

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ II. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE

The soft-hammer waste(s) I generate or have treated is(are) \_\_\_\_\_. I have made a good-faith effort to locate and contract with treatment and recovery facilities practically available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.8(a)(2), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates, and a discussion of why no treatment is practically available. This soft-hammer waste must be disposed of in a landfill or surface impoundment meeting the minimum technological standards until treatment standards are set for the waste or May 8, 1990, whichever occurs first.

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ III. TREATMENT OR RECOVERY FACILITY HAS TREATED THE WASTE

The following soft-hammer waste(s) was treated in accordance with the generator's demonstration: \_\_\_\_\_

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of these individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ IV. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL)

The soft-hammer waste(s) I generate is(are) \_\_\_\_\_. This waste is being disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements of Section I, II or III.

ENVIRONMENTAL ENGR  
Title

12/27/77  
Date

Thomas D. Hearn  
Signature



# HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. D B D 0 0 3 9 1 3 2 6 6 0 0 1 9 2		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Occidental Chemical Corp. River Road, Delaware City, DE 19706 Generator's Phone ( 302 ) 834-3856				6. US EPA ID Number					
5. Transporter 1 Company Name Freehold Cartage				8. US EPA ID Number N J D 0 5 4 1 2 6 1 6 4					
7. Transporter 2 Company Name				10. US EPA ID Number					
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459				12. Containers		13. Total Quantity		14. Unit Wt/Vol	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) Hazardous Waste, Solid, N.O.S., ORM-I, NA9189 (K106), RQ CWM Profile Number 201 E 68 Old 1/11/89 cke				No. Type		Quantity		Unit Wt/Vol	
b. CWM Profile Number									
c. CWM Profile Number									
d. CWM Profile Number									
15. Additional Descriptions for Materials Listed Above Mercury contaminated driver filtercake and extert ash.				16. Handling Codes for Materials Listed Above					
5. Special Handling Instructions and Additional Information I certify that no absorbents were added to above waste which would prohibit its being landfilled per RCRA 3004 (C-1). Avoid skin contact.									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name Alan L. Ivler				Signature <i>Alan L. Ivler</i>		Month Day Year 0 1 0 9 8 9			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Thomas Dolan				Signature <i>Thomas Dolan</i>		Month Day Year 0 1 0 9 8 9			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year			
19. Discrepancy Indication Space Penella - 11/11/89									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name B. M. H.				Signature <i>B. M. H.</i>		Month Day Year 1 1 1 1 8 9			

3/12/88

LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM  
FIRST-THIRD WASTES FOR WHICH NO TREATMENT STANDARDS HAVE BEEN SET  
("SOFT-HAMMER" WASTES RESTRICTED AS OF AUGUST 8, 1988)

Generator Name: OCCIDENTAL CHEMICAL CORP CWM Profile Number: 68061  
EPA ID Number: D80003913265 Manifest Number: CUM4 40664

This form is submitted to CHURCH & DWIGHT INC in accordance with 40 CFR Part 268, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions on using this form.)

☒ I. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED

The soft-hammer waste I generate is(are) K106. I have identified a practically available treatment technology that yields the greatest environmental benefit. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.8(a)(1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and contact dates and a justification that I have chosen the best treatment that is practically available.

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ II. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE

The soft-hammer waste(s) I generate or have treated is(are) \_\_\_\_\_. I have made a good-faith effort to locate and contract with treatment and recovery facilities practically available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.8(a)(2), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates, and a discussion of why no treatment is practically available. This soft-hammer waste must be disposed of in a landfill or surface impoundment meeting the minimum technological standards until treatment standards are set for the waste or May 8, 1990, whichever occurs first.

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ III. TREATMENT OR RECOVERY FACILITY HAS TREATED THE WASTE

The following soft-hammer waste(s) was treated in accordance with the generator's demonstration: \_\_\_\_\_.

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ IV. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL)

The soft-hammer waste(s) I generate is(are) \_\_\_\_\_. This waste is being disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements of Section I, II or III.

Env. Engr.  
Title

11/9/89  
Date

Thomas A. Brown  
Signature



# HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. D E D 0 0 3 9 1 3 2 6 6 0 0 1 9 7	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Occidental Chemical Corporation River Road, Delaware City, DE 19706				A. State Manifest Document Number <b>CWMA 401673</b>		
4. Generator's Phone ( 302 ) 834-3856				B. State Generator's ID		
5. Transporter 1 Company Name Freehold Cartage		6. US EPA ID Number N J D 0 5 4 1 2 6 1 6 4		C. State Transporter's ID <b>22452180</b>		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 201-462-1001		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459		10. US EPA ID Number A L D 0 0 0 6 2 2 4 6 4		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone <b>205/652-9721</b>		
11. DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a. Hazardous Waste, Solid, N.O.S., ORM-E, NA9189 (K106), RQ CWM Profile Number COLE 68061			0 0 1 C M	24250	P	K 1 0 6
b. CWM Profile Number						
c. CWM Profile Number						
d. CWM Profile Number						
J. Additional Descriptions for Materials Listed Above Mercury contaminated Shriver filtercake and retort ash. OXY P.O.#AB224963-80DC			K. Handling Codes for Wastes Listed Above a. <b>ST</b> <b>Landfill</b> b. c. d.			
Special Handling Instructions and Additional Information I certify that no absorbents were added to above waste which would prohibit its being landfilled per RCRA 3004 (C-1). Avoid skin contact.						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Alan L. Imler			Signature <i>Alan L. Imler</i>		Month Day Year 10 21 3 89	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>DDUC</i>			Signature <i>DDUC</i>		Month Day Year 10 21 3 89	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Robert Simpson						
			Signature <i>Robert Simpson</i>		Month Day Year 1 2 1 5 89	

# "SOFT-HAMMER" WASTES

## LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM

Generator Name: Occidental Chemical Corp.

Manifest Number: OWMA 401673

EPA ID Number: DED003913266

CMAA Profile Number: COLE 68061

This form is submitted to Chem Waste in accordance with 40 CFR Part 265, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions on using this form.)

☒ I. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED

The soft-hammer waste(s) I generate is(are) K106  
I have identified a practically available treatment technology that yields the greatest environmental benefit. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 265.8(a)(1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and contact dates, and a justification that I have chosen the best treatment that is practically available.

I certify under penalty of law that the requirements of 40 CFR 265.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit as indicated in my demonstration. I believe that the information submitted is true, accurate, and reliable. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ II. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPONDEMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE

The soft-hammer waste(s) I generate or have treated is(are) \_\_\_\_\_  
I have made a good-faith effort to locate and contact with treatment and recovery facilities practically available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 265.8(a)(2), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates, and an explanation of why no treatment is practically available. This soft-hammer waste must be disposed of in a landfill or surface impoundment meeting the minimum technological standards until treatment standards are set for the waste or May 8, 1990, whichever occurs first.

I certify under penalty of law that the requirements of 40 CFR 265.8(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ III. TREATMENT OR RECOVERY FACILITY HAS TREATED THE WASTE

The following soft-hammer waste(s) was treated in accordance with the generator's demonstration: \_\_\_\_\_  
I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ IV. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPONDEMENT (e.g. DEEP INJECTION WELL)

The soft-hammer waste(s) I generate is(are) \_\_\_\_\_  
This waste is being disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements of Section II.

Signature: [Signature] The Producer Date 2/13/89





# HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. DE D00391326600198		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Occidental Chemical Corporation River Road, Delaware City, DE 19706						A. State Manifest Document Number <b>CWMA 401669</b>			
4. Generator's Phone (302) 634-3856						B. State Generator's ID			
5. Transporter 1 Company Name Freehold Cartage			6. US EPA ID Number NJ D058126164			C. State Transporter's ID 21140			
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone 201-462-1001			
						E. State Transporter's ID			
						F. Transporter's Phone			
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459			10. US EPA ID Number AL D000622464			G. State Facility's ID			
						H. Facility's Phone 205/652-9721			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) Hazardous Waste, Solid, N.O.S., ORM-E, NA9189 (K106), <del>RM</del> RQ CWM Profile Number COLE 68061				12. Containers No. Type 001 CM		13. Total Quantity 27140		14. Unit P	
								Waste No. K106	
b.									
c.									
d.									
J. Additional Descriptions for Materials Listed Above Mercury contaminated shriver filtercake and retort ash. OXY SPO. <del>IME</del> DB2494-01DC				K. Handling Codes for Wastes Listed Above a. D-84 Landfill b. c. d.					
I. Special Handling Instructions and Additional Information I certify that no absorbents were added to above waste which would prohibit its being landfilled per RCRA 3004 (C-1). Avoid skin contact.									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name Alan L. Imler				Signature 				Month Day Year 03 20 89	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Tom Baker				Signature 				Month Day Year 03 20 89	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature				Month Day Year	
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name									
				Signature				Month Day Year	

# "SOFT-HAMMER" WASTES

## LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM

Generator Name: Occidental Chemical Corp.

Manifest Number: CWMA 401669

EPA ID Number: DED003913266

CWM Profile Number: COLE 68061

This form is submitted to Citem Waste in accordance with 40 CFR Part 268, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions on using this form.)

☒ I. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED

The soft-hammer waste(s) I generate is(are) K 1 0 6

I have identified a practically available treatment technology that yields the greatest environmental benefit. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.8(a)(1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and contact dates, and a justification that I have chosen the best treatment that is practically available.

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ II. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE

The soft-hammer waste(s) I generate or have treated is(are) \_\_\_\_\_

I have made a good-faith effort to locate and contract with treatment and recovery facilities practically available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 268.8(a)(2), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates, and an explanation of why no treatment is practically available. This soft-hammer waste must be disposed of in a landfill or surface impoundment meeting the minimum technological standards until treatment standards are set for the waste or May 8, 1990, whichever occurs first.

"I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

☐ III. TREATMENT OR RECOVERY FACILITY HAS TREATED THE WASTE

The following soft-hammer waste(s) was treated in accordance with the generator's demonstration: \_\_\_\_\_

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ IV. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL)

The soft-hammer waste(s) I generate is(are) \_\_\_\_\_ . This waste is being disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements of Section II.

Signature

Thomas D. Johnson

Title

Environmental Engineer

Date

3/20/89







# HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. DE D 9 9 3 9 4 3 2 6 6 0 0 2 0 0	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.						
3. Generator's Name and Mailing Address Occidental Chemical Corporation River Road, Delaware City, DE 19706				A. State Manifest Document Number CWMA 401670							
4. Generator's Phone (302) 834-3856				B. State Generator's ID							
5. Transporter 1 Company Name Freehold Cartage				C. State Transporter's ID DE 25215							
6. NJD US EPA ID Number XXXX 1054126164				D. Transporter's Phone 201-462-1001							
7. Transporter 2 Company Name Freehold Cartage				E. State Transporter's ID DE 2521680							
8. US EPA ID Number 107D0541126164				F. Transporter's Phone 201-462-1001							
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459				G. State Facility's ID							
10. US EPA ID Number AL D 0 0 0 6 2 2 4 6 4				H. Facility's Phone 205/652-9721							
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) Hazardous Waste, Solid, N.O.S., OKM-E, NA9189, (K106), RQ CWM Profile Number E68061 COL/OAK				12. Containers No. Type 0 0 1 C M	13. Total Quantity 24,930	14. Unit Wt/Vol P	15. Waste No. K106				
b. CWM Profile Number											
c. CWM Profile Number											
d. CWM Profile Number											
J. Additional Descriptions for Materials Listed Above Mercury contaminated Shriver filtercake and retort ash. Oxy P.O. #DB2494-03DC				K. Handling Codes for Wastes Listed Above a. D-84 ST Landfill							
Special Handling Instructions and Additional Information I certify that no absorbents were added to above waste which would prohibit its being landfilled per RCRA 3004 (C-1). Avoid skin contact.											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.											
Printed/Typed Name Alan L. Imler				Signature <i>Alan L. Imler</i>		Month Day Year 10/4/01/8/9					
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Bill Burns				Signature <i>Bill Burns</i>		Month Day Year 10/4/01/8/9					
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Dave Rye				Signature <i>Dave Rye</i>		Month Day Year 10/4/02/8/9					
19. Discrepancy Indication Space											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name John Smithers								Signature <i>John Smithers</i>		Month Day Year 04/03/89	

"SOFT-HAMMER" WASTES

LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM

Generator Name: Occidental-Chemical Corp.

Manifest Number: CWMA 401670

EPA Number: DED 003913266

CMAA Profile Number: E68061 COL/OAK

This form is submitted to Chem Waste in accordance with 40 CFR Part 265, which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box below to indicate whether alternative treatment has been found for my waste. (See reverse side for the list of "soft-hammer" wastes and instructions on using the form.)

☒ I. SOFT-HAMMER WASTE FOR WHICH ALTERNATIVE TREATMENT OR RECOVERY HAS BEEN LOCATED

The soft-hammer waste (are) generate (are) K106  
I have identified a practically available treatment technology that yields the greatest environmental benefit. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 265.8(a)(1), including a list of facilities and facility officials contacted, complete with addresses, telephone numbers, and contact dates, and a justification that I have chosen the best treatment that is practically available.

I certify under penalty of law that the requirements of 40 CFR 265.8(a)(1) have been met and that I have contacted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ II. SOFT-HAMMER WASTE FOR WHICH DISPOSAL IN LANDFILL OR SURFACE IMPOUNDMENT IS THE ONLY PRACTICAL ALTERNATIVE TO TREATMENT CURRENTLY AVAILABLE

The soft-hammer waste(s) (are) generate (are) have been treated (are) as follows:  
I have made a good-faith effort to locate and contact with treatment and recovery facilities practically available which can meaningfully reduce the toxicity or mobility of hazardous constituents in the waste, as an alternative to land disposal. I have found no such alternative facility. Together with the initial shipment of waste represented by this form, I submitted a demonstration in accordance with 40 CFR 265.8(a)(2), including a list of facilities and facility officials contacted, addresses, telephone numbers, contact dates, and an explanation of why no treatment is practically available. The soft-hammer waste must be disposed of in a landfill or surface impoundment meeting the minimum technological standards until treatment standards are set for the waste or May 8, 1990, whichever occurs first.

I certify under penalty of law that the requirements of 40 CFR 265.8(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ III. TREATMENT OR RECOVERY FACILITY HAS TREATED THE WASTE

The following soft-hammer waste(s) was treated in accordance with the generator's demonstration:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

☐ IV. SOFT-HAMMER WASTE DESTINED FOR LAND DISPOSAL OTHER THAN IN LANDFILL OR SURFACE IMPOUNDMENT (e.g. DEEP INJECTION WELL)

The soft-hammer waste(s) (are) generate (are) disposed of in a land disposal unit other than a landfill or surface impoundment and therefore is not subject to the certification and demonstration requirements of Section II.

Signature

*[Signature]*

Production Manager

Date 4/1/89







# Occidental Chemical Corporation

CERTIFIED MAIL

RECEIVED

OCT 18 1988

EPA, REGION III  
OFFICE OF REGIONAL ADMINISTRATOR

October 13, 1988

Regional Administrator  
U.S. EPA, Region III  
841 Chestnut Building  
Philadelphia, PA 19107

RE: Soft Hammer Demonstration/Certification  
Occidental Chemical Corporation  
Delaware City, DE 19706  
EPA ID NO. DED003913266

Dear Sir:

In accordance with the Environmental Protection Agency's land disposal restrictions governing the first third scheduled wastes, Occidental Chemical Corporation has enclosed a soft hammer demonstration and certification as per 40 CFR 268.8(a)(1) for EPA waste code K106.

The demonstration reflects our efforts to locate practically available treatment that affords the greatest environmental benefit. Based on our search for such treatment, we have determined that:

STABILIZATION is the best practically available treatment (see attached demonstration for further details).

It should be noted that prior to stabilization, the pollutant of concern, mercury, exhibits a low leachable value, as measured by the TCLP test.

If any further information is required, please contact me at 302-834-3831.

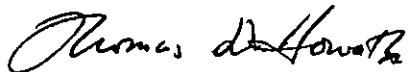
## OxyChem

Electrochemicals, Detergents & Specialty Products  
River Road, P.O. Box 550, Delaware City, Delaware 19706-1550  
302 834-3800

## Occidental Chemical Corporation

I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Sincerely,



Thomas D. Horvath  
Environmental Engineer

mam

## SOFT HAMMER DEMONSTRATION

Attachment 11

FACILITY OWNER	LOCATION	TREATMENT METHOD	TELEPHONE	CONTACT	DATE	EXPLANATION*
1. Cecos Int'l.	56th & Pine Ave. Niagara Falls, NY 14304	Stabilization	201-248-0500	Rick Wigal	9/26/88	G, J, K, O, P
2. Envirosafe Services	876 Otter Creek Rd. Oregon, OH 43616	Stabilization	215-962-0800	Richard Pastor	9/26/88	G, J, K, O, P (also not presently permitted to accept K106)
3. Chemical Waste Management	Alabama Highway 17 Emelle, AL 35459	Stabilization	609-243-7800	Joseph D'Angelo	10/5/88	G, J, K, O, P

\* See Attachment 4 for explanations.



ATTACHMENT 4

FIRST THIRD "SOFT-HAMMER DEMONSTRATION

Soft-Hammer Waste For Which Alternative Treatment or Recovery Has Been Located

- A Rotary Kiln Incineration is a practically available technology that yields the greatest environmental benefit. This waste is principally organic residues which are best destroyed by incineration.
- B Liquid Injection Incineration is a practically available technology that yields the greatest environmental benefit. This waste is principally pumpable organic residues which are best destroyed by incineration.
- C Fuels Blending is a practically available technology that yields the greatest environmental benefit. This waste has a heating value greater than or equal to 5,000 BTU per pound and can be best reused as a hazardous waste fuel.
- D A combination of Fuels Blending, and/or Rotary Kiln or Liquid Injection is a practically available technology that yields the greatest environmental benefit. This is due to the properties of my waste which may vary slightly, from one load to the next. Solid nondispersible residues will need to be incinerated; but the pumpable or dispersible portions may be blended for hazardous waste fuels usage (when the BTU's, chlorine, ash, etc. are within the required ranges); or else incinerated.
- E Chemical Precipitation (with filtration or decanting) is a practically available technology that yields the greatest environmental benefit. This should reduce the toxicity/mobility of the hazardous constituents by reducing the toxic volume of the waste.
- F Filtration is a practically available technology that yields the greatest environmental benefit. This should reduce the toxicity/mobility of the hazardous constituents by reducing the toxic volumes of the waste.
- G Stabilization is a practically available technology that yields the greatest environmental benefit.
- I have examined recovery and destruction technologies found that they were not practically available for the following reason(s):
- H Chemical oxidation is a practically available technology that yields the greatest environmental benefit. Chemical oxidation will reduce the toxicity of hazardous constituents in the waste.

This waste is not suitable for incineration or fuels due to:

- I the low percentage of hazardous organic constituents presents,  
J the low heating value of the waste,  
K the high percentage of inorganic constituents present,  
L the lack of located available capacity of incineration or fuels blending facilities

This waste is not suitable for recovery due to:

- M The hazardous constituents are present in concentrations that make recovery technologically impossible.  
N The hazardous constituents are present in concentrations that make recovery economically infeasible.  
O No recovery facilities were located that could treat this type of waste.  
P No recovery facilities were located that had capacity to treat this type of waste  
Q The treatment technology identified above is a past practice that has been demonstrated to meaningfully reduce the toxicity and/or mobility of the waste.